What is Claimed is:

1. A method of manufacturing a semiconductor device comprising a process of forming a photoresist pattern using a photoresist polymer remover composition, said composition comprising:

(a) 5% to 15% of sulfuric acid based on the total weight of said composition;

(b) 1% to 5% of hydrogen peroxide or 0.0001% to 0.05% of ozone based on the total weight of said composition;

(c) 0.1% to 5% of acetic acid based on the total weight of said composition;

(d) 0.0001% to 0.5% of ammonium fluoride based on the total weight of said composition; and

(e) remaining amount of water.

2. The method according to claim 1, said composition comprising:

(a) 7% to 10% of sulfuric acid based on the total weight of said composition;

(b) 2% to 4% of hydrogen peroxide or 0.0002% to 0.001% of ozone based on the total weight of said composition;

(c) 0.5% to 2% of acetic acid based on the total weight of said composition;

(d) 0.01% to 0.05% of ammonium fluoride based on the total weight of said composition; and

(e) remaining amount of water.

3. The method according to claim 1, wherein the composition is further characterized as a dry etching cleaner.

4. The method according to claim 1, wherein the process of forming a photoresist pattern comprises the steps of:

preparing a semiconductor substrate on which an underlying layer is formed;

forming a photoresist pattern on the underlying layer;

selectively etching the underlying layer using the photoresist pattern as an etching mask; and

cleaning the resulting structure using the photoresist polymer remover composition to remove residual photoresist polymers, whereby forming the underlying layer pattern.

5. The method according to claim 4, wherein the underlying layer is selected from the group consisting of aluminum film, aluminum alloy film, titanium film, titanium nitride film, tungsten film, and combinations thereof.

6. The method according to claim 5, wherein the underlying layer is a stacked film where a titanium nitride film, an aluminum film and a titanium film are sequentially deposited.

7. The method according to claim 4, wherein the underlying layer is an insulating film, and a metal film is formed under the insulating film.

8. The method according to claim 7, wherein the underlying layer is a HSQ (Hydrogen Silsesquioxane) film.

9. The method according to claim 4, further comprising the step of removing the photoresist pattern by an ashing process after the etching and before the cleaning.

10. The method according to claim 4, wherein the photoresist pattern is formed by a photolithography process using ArF (193nm), KrF (248nm), F_2 (157nm), EUV (13nm), E-beam, X-ray or ion-beam as an exposure light source.

11. The method according to claim 4, wherein said underlying layer pattern is an insulating film hole pattern or metal line/space pattern.

12. The method according to claim 4, wherein the photoresist pattern is formed by an etch-back process or CMP (Chemical Mechanical Polishing) process.

13. The method according to claim 4, wherein the cleaning is performed using single-type or batch type equipment.

14. A semiconductor device manufactured by the method of claim 4.

15. A method of cleaning a photoresist pattern using a composition comprising:

(a) 5% to 15% of sulfuric acid based on the total weight of said composition;

(b) 1% to 5% of hydrogen peroxide or 0.0001% to 0.05% of ozone based on the total weight of said composition;

(c) 0.1% to 5% of acetic acid based on the total weight of said composition;

(d) 0.0001% to 0.5% of ammonium fluoride based on the total weight of said composition; and

(e) remaining amount of water.

16. A photolithographic method comprising the steps of:

forming a photoresist pattern on a semiconductor substrate; and

cleaning the photoresist pattern using a photoresist polymer remover composition, said composition comprising:

(a) 5% to 15% of sulfuric acid based on the total weight of said composition;

(b) 1% to 5% of hydrogen peroxide or 0.0001% to 0.05% of ozone based on the total weight of said composition;

(c) 0.1% to 5% of acetic acid based on the total weight of said composition;

(d) 0.0001% to 0.5% of ammonium fluoride based on the total weight of said composition; and

(e) remaining amount of water.